

CASSETTE CAR STEREO  
WITH FM/AM ELECTRONIC TUNER

# OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lee atentamente este manual.

شكراً لك على شرائك جهازاً بايونير هذا. قبل محاولة تشغيله، تأكد من قراءة هذا الدليل.



KE-2424

 **PIONEER®**

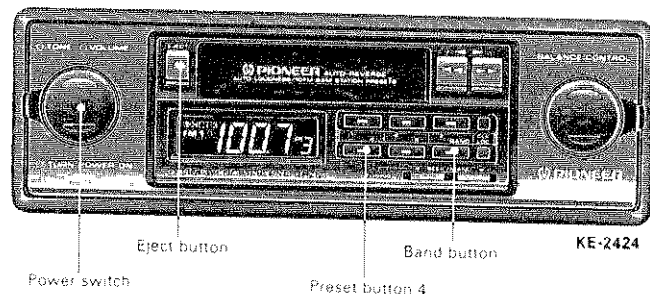
KE-2424  
KE-1414

## Features

- Seek tuning for automatic tuning to the next higher or lower broadcast on the band.
- Preset tuning function for frequency selection at the touch of a button.
- For AM reception, a tuning step is switchable to the other according to the zonal frequency range.
- Auto reverse function eliminates the need to turn the cassette over and allows uninterrupted playback.  
(This feature is provided for the KE-2424.)
- Auto-replay function automatically restarts playback from the beginning of the tape after rewind.
- Built-in 12-hour format digital clock.

## Switching the Tuning Steps

The AM tuning step for this unit can be switched between 9 kHz and 10 kHz. The tuning step is set to 10 kHz upon shipment from the factory. When using in places other than North, Central, and South America, switch to 9 kHz steps.



1. Press the eject button in fully and eject the cassette, then turn the power switch off.
  2. The AM tuning step changes when the band button and preset button 4 are pressed simultaneously and the power switch is turned on. (The frequencies stored in the memory are cleared when this is done.)
- Changing the vehicle's battery sets the tuning steps and frequency range settings to their initial setting.

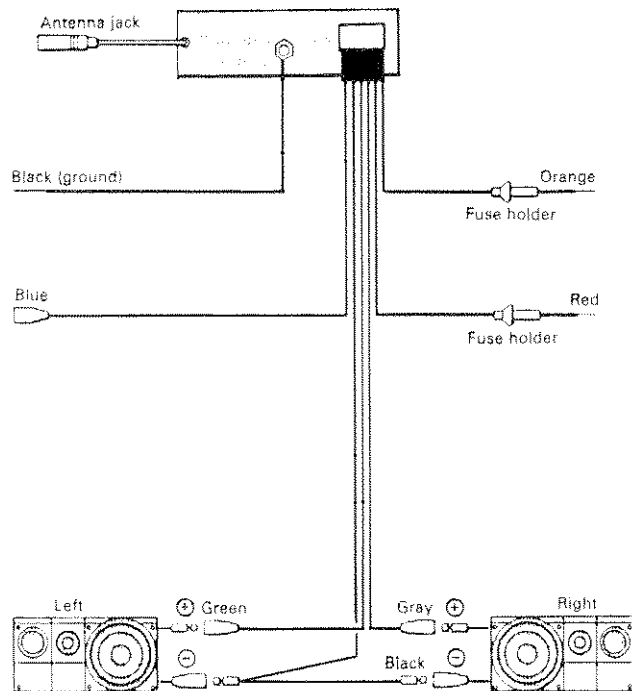
Specification		Initial Setting	New Setting
AM	Tuning steps	10 kHz steps	9 kHz steps
	Frequency range	530 — 1,620 kHz	531 — 1,602 kHz

# Connections

## Note:

- To avoid shorts in the electrical system, be sure to disconnect the battery  $\ominus$  cable before beginning installation.
- Replace fuses only with the types stipulated on the fuse holder.
- Be sure to properly connect the color coded leads. Failure to do so can cause malfunctions.
- When the power amp is being linked with this system, be sure not to connect the blue lead to the amp's power terminal. Likewise, when linking this system with the auto-antenna, do not connect to power terminal for the antenna. Such connection can make overcurrent cause malfunctions.

Black (ground)	To vehicle (metal) body.
Blue	If this unit is combined with a power amp, connect its blue lead to the blue lead (system control terminal) of the power amp. If combined with an auto-antenna, connect its blue lead to the relay control terminal of the auto-antenna. (MAX. 300 mA, 12 V DC)
Orange	To terminal always supplied with power regardless of ignition switch position.
Red	To electric terminal controlled by ignition switch (12 V DC) ON/OFF.



## Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- If installation angle exceeds  $30^\circ$  from horizontal, the unit might not give its optimum performance. (Fig. 1)

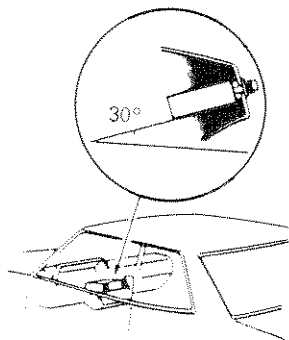


Fig. 1

## Strap

Be sure to use the strap to secure the back of the unit in place to prevent wobble and flutter. The strap can be bent by hand to the desired angle.

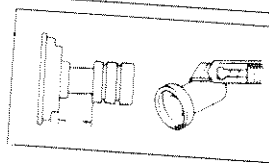
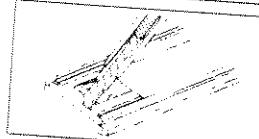
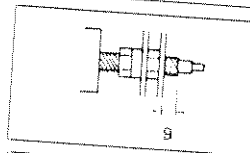
If the shaft extends from the dashboard more than 9 mm, use the supplied nut and washer to adjust the length.

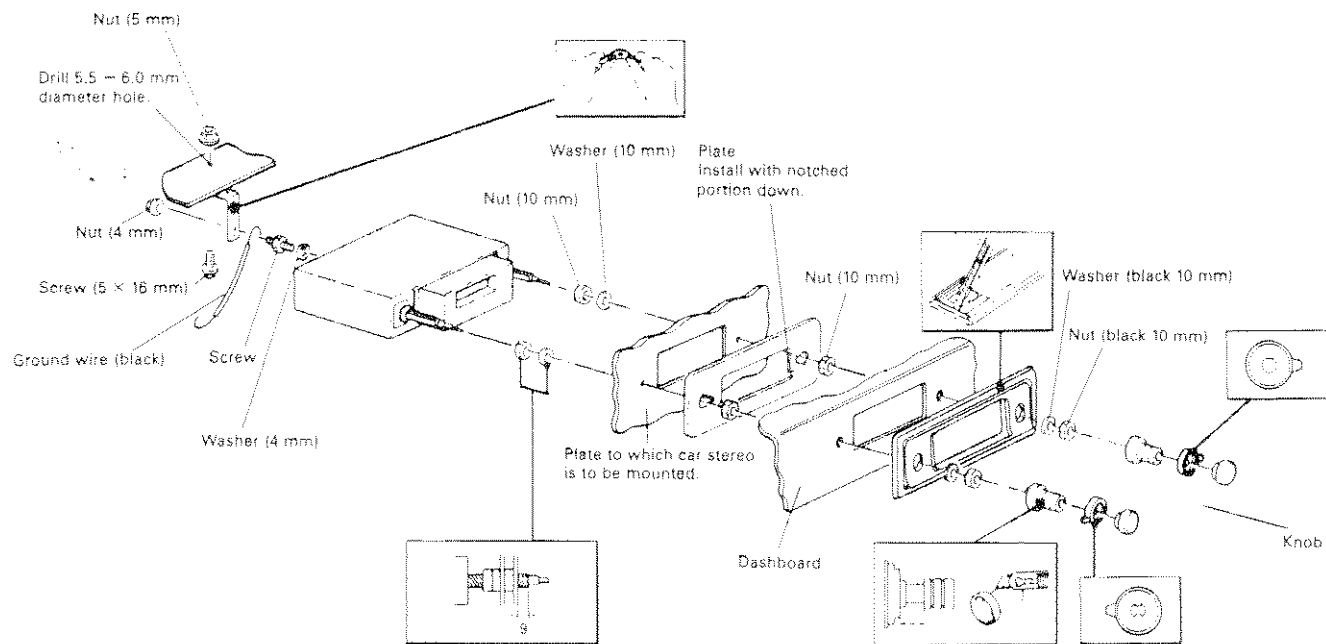
## Front panel

The front panel can be cut along the ridges on the back if it is too large to be installed as furnished.

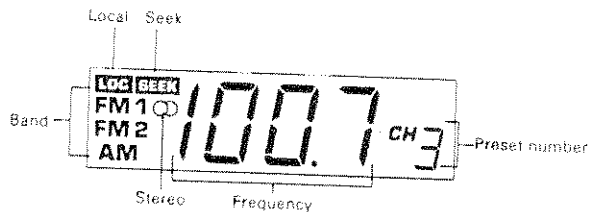
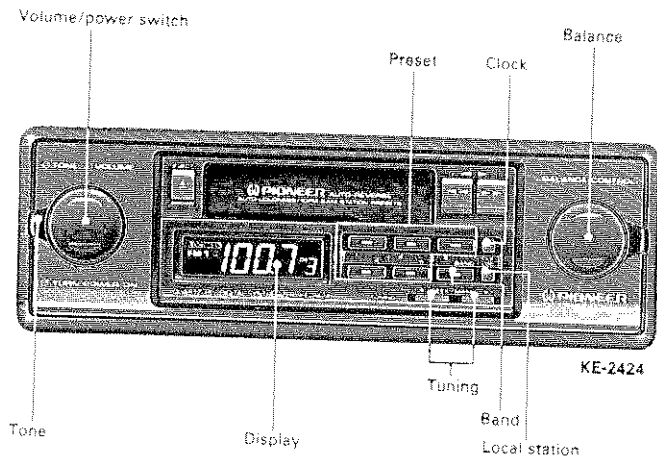
## Shaft cover

Cut the shaft cover to the proper size to fill any gap which may occur between the front panel and control knob.





# Using the Radio



## • Before attempting operation...

- Since the set is designed preferentially for tape play, eject the tape, if mounted, before operating the radio.
- 1. Turning the power switch to the right causes power to switch on and the current frequency to appear on the display.
- 2. Press the band switch to select the band.
- 3. Press the left and right tuning buttons simultaneously and the seek tuning indicator will appear on the display.
- 4. Press either the left or right side of the tuning buttons to tune to the desired frequency. (Pressing the right side will increase the frequency.)

- 5. Adjust the volume and balance.
- 6. Adjust the tone.

## • To enter a frequency into the preset memory...

- 7. Hold down one of the preset buttons (1-5) for approximately 2 seconds. The frequency is stored in memory (assigned to the preset button pressed) once the preset number stops flashing on the display.
- Five FM1 frequencies, five FM2 frequencies and five AM frequencies can be entered.

## • Local Station Switch

Pressing this switch lowers the seek tuning reception sensitivity so that only stronger signals can be tuned in. This feature is useful when driving through areas that have numerous radio stations. When this switch is depressed, the local indicator will be illuminated on the display.

- **Auto-Loudness**

When playing back a tape or listening to the radio at low volume, the low tone is automatically emphasized.

- **Clock Switch**

Each press causes the display to switch between clock and frequency.

## **Seek Tuning**

Press the left and right tuning buttons simultaneously, and tuning to the next higher or lower broadcast on the band can be accomplished automatically by simply pressing either the left or right side of the tuning button. FM frequencies change in 50 kHz steps while those in the AM band change in 10 kHz steps.

- AM frequencies are tuned in 9 kHz steps after the tuning steps are changed

## **Preset Tuning**

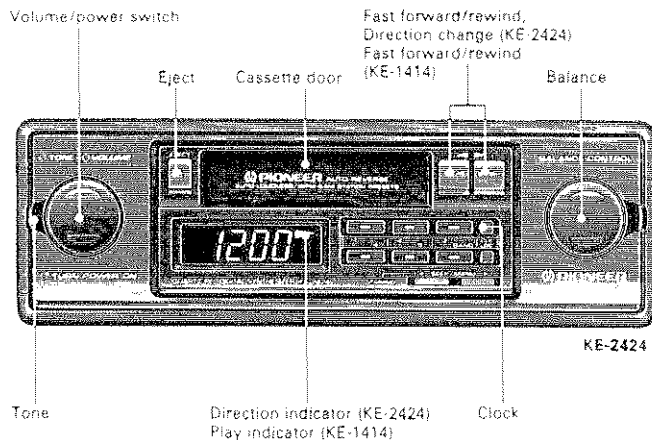
Pressing the preset button instantly tunes in the frequency programmed in the memory for that button.

## **Manual Tuning**

When manual tuning is employed, FM frequencies change in 50 kHz steps while AM frequencies change in 10 kHz steps.

- AM frequencies are tuned in 9 kHz steps after the tuning steps are changed
1. Press the left and right tuning buttons simultaneously and the seek tuning indicator will disappear from the display.
  2. Change the frequency by pressing either the left or right side of the tuning button. Pressing the button once will change the frequency one step (see above). Continuously depressing either side of the button will successively change the frequency at the prescribed step.

# Using the Tape Deck



1. Turning the power switch to the right causes power to switch ON.
2. Loading a cassette tape into the load slot causes playback to begin automatically.
3. Adjust the volume and balance.
4. Adjust the tone.

## KE-2424

5. When tape playback reaches the end of the tape, playback will automatically switch from the side being played to the opposite side (ie. Side A to Side B or vice versa) (Auto-reverse). To stop the tape during playback, press the eject button.

## KE-1414

5. When playback reaches the end of the tape, the unit will automatically stop (Auto-stop). Press the eject button to stop the tape during playback.

- A loose or warped label on a cassette tape may interfere with the operation of the unit or cause the cassette to become jammed in the unit. Remove such labels from the cassette before use.
- Be sure to eject the tape when the vehicle's ignition is turned off. A tape in the unit can deform the pinch roller causing wow and flutter.
- Loose tapes should be rewound with the aid of a pencil and the fast forward function.

## • Fast Forward/Rewind (KE-2424)

Since the transport can be in either direction, both the high-speed tape transport buttons can be regarded as fast forward and rewind buttons.

For fast forward, press the high-speed tape transport button. This corresponds to the direction that is shown by the direction indicator. When the end of the tape is reached, playback will begin from the opposite side of the tape (Auto-reverse). For rewind, press the button that is opposite that shown by the direction indicator. When the end of the tape is reached, playback will automatically begin from the same side of the tape (Auto-replay).

Fast forward and rewind can be terminated by pressing the opposite high-speed tape transport button.



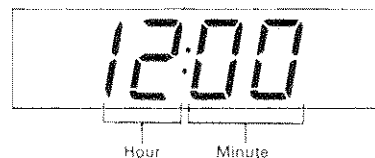
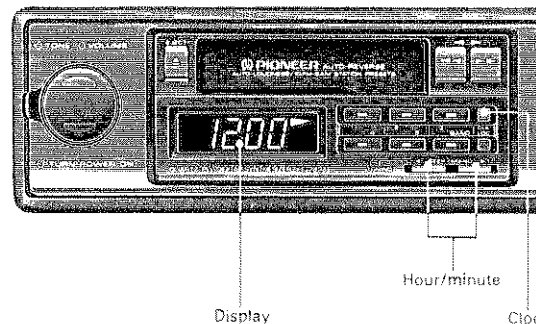
## Setting the Time

### ● Fast Forward/Rewind (KE-1414)

Press the fast forward button to advance the tape at high speed and the rewind button for high speed return. When fast forward is used, the auto-stop function will automatically stop the cassette when the end of the tape is reached. With rewind, the tape will start to play-back automatically when the beginning of the tape is reached (Auto-replay). Press the button for the respective opposite function to disengage either fast forward or rewind.

### ● Change in Tape Direction (KE-2424)

To change Side A to B or vice versa, push buttons Fast Forward and Rewind simultaneously.



1. Press the clock switch to switch to the time display.
2. Each press of the left side of the hour/minute clock switch advances the hour while holding down the clock switch advances the hour by one hour. Each press of the right side advances the minute by one minute. Holding down either side of the hour/minute clock button advances the respective hour/minute display at a fast speed.

## Care and Maintenance

- Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.
- If the playback head becomes dirty, sound quality will suffer. Periodically (once or twice a month) clean the heads with a cotton swab soaked with alcohol. (Fig. 1)
- Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport. (Fig. 2)
- Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.
- Frequencies and times stored in memory can be lost when the vehicle's battery is replaced. If this should occur, reprogram the preset memory.
- **After Service**

In the event this unit does not function properly, contact your dealer or the nearest authorized PIONEER Service Center.

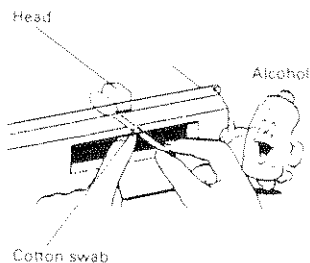


Fig. 1

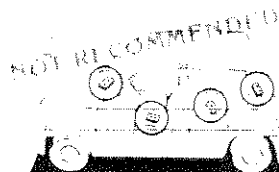


Fig. 2

## Specifications

### General

Power source	14.4 V DC (10.8 - 15.6 V allc)
Grounding system	Negative
Max. current consumption	
Dimensions (chassis)	170(W) × 50(H) × 130(D)
(nose)	105(W) × 42(H) × 39(D)
Shaft interval	1
Weight	1

### Amplifier

Maximum power output	8.5 W × 2
Continuous power output	4.5

(1% dist. at 100 Hz)  
Continuous power output is 3.2 W per channel min. into 4 ohms, both channels, 20 Hz to 20,000 Hz with no more than 5% THD.

Load impedance	4 Ω (2 - 8 Ω allowed)
Loudness contour	18 dB (100 Hz) (volume: -)

### Tape player

Tape	Compact cassette tape (C-30 -)
Tape speed	4.8 cm/sec. (1.7
Fast forward/rewind time	Approx. 100 sec. (f
Wow & flutter	0.13% (V
Frequency response	50 - 14,000 Hz (f
Stereo separation	
Signal-to-noise ratio	52 dB (IEC-A ne

### FM tuner

Frequency range	87.5 - 10
Usable sensitivity	15 dBf (1.6 μV/75 Ω
50 dB quieting sensitivity	20 dBf (2.8 μV/75 Ω
Signal-to-noise ratio	70 dB (IEC-A ne
Distortion	0.3% (at 65 dBf, 1 kHz)
Frequency response	50 - 15,000 Hz (f
Stereo separation	35 dB (at 65 dBf,

### AM tuner

Frequency range	530 - 1,620 kHz (f
Usable sensitivity	531 - 1,602 kHz
Selectivity	18 μV (25 dB) (S/N: 50 dB (±1

### Note:

Specifications and the design are subject to possible modification without notice due to improvements.